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Research Grants Grade-Evaluation Guide

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NOTE

This standard has been converted from the original paper format to electronic format without substantive change in series coverage or grading criteria. The standard was reviewed to correct errors that may have been introduced during the conversion process. In some standards minor corrections were made such as updating references to other documents that may have become obsolete, or correcting minor typographical errors in the original standard. Any errors that remain due to conversion to electronic format should be minor and are not intended to change the meaning of the original standard.

If you find page references near the right hand margin of this standard they indicate the pagination of the official, printed version of this standard. For example, a notation "Page 2, 4/88, TS-87" would mean that (1) page two of the printed version begins here, (2) the date of issuance was 4/88, and (3) the Transmittal Sheet number was TS-87.

Research Grants Grade-Evaluation Guide

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COVERAGE

This guide provides criteria for evaluating the grade level of professional and scientific positions primarily concerned with the analysis, evaluation, planning, organizing, coordination, and approval of scientific research programs and projects that are carried out in educational, research, and other institutions.

Many Federal agencies are engaged in supporting research through grants or contracts to universities, foundations, and other-kinds of profit and nonprofit institutions. This support is offered to encourage research activities that are expected to have a favorable effect on the mission of the agency. Some agencies have, in addition, a general mandate to support basic research in scientific areas related to the primary mission of the agency or of national interest.

This guide is designed to provide a uniform set of criteria for the grade-level evaluation of professional positions in the physical, life, social, and engineering sciences, which are classified to a wide range of occupational series.

EXCLUSIONS

1. This guide does not apply to positions involved in the conduct or direction of research in the natural, life, or behavioral sciences, the mathematical sciences, or engineering, in Government laboratories or installations. Such positions are classified in accordance with the provisions of the "Research Grade-Evaluation Guide" (or the specific classification standard for the occupations not covered by the Research Grade-Evaluation Guide).
2. Research contracts are also used by some agencies to continue or extend their own work. Commonly, in this situation, the scientist who is responsible for the in-house research activities also participates in the award, monitors the contract, advises the contractor, and evaluates the findings. The grading of this scientist's position would normally be derived from his primary agency research responsibility since his external research duties are an extension of that responsibility.
3. Part II of the Supervisory Grade-Evaluation Guide should be used to evaluate supervisory positions.

DETERMINATION OF CLASSIFICATION SERIES

Positions covered by this grade-level guide will continue to be classified to the appropriate established classification series in accordance with the definitions published in the

Commission's "Handbook of Occupational Groups and Series of Classes," and the amplifying material in published position-classification standards.

In many cases, the appropriate classification series will be one of the traditional academic disciplines such as chemistry, biology, or psychology. In other situations, the work of the position may require knowledge of a combination of two or more scientific discipline the application of knowledges characteristic of either of two (or more) scientific disciplines. With such interdisciplinary positions the qualifications of the incumbent or proposed incumbent are usually highly significant in selecting the most appropriate classification series.

Other positions may require, rather than intensive knowledge of one or more academic disciplines, extensive knowledge of a broad spectrum of science and the scientific method. Such positions are classified to broader series such as the General Physical Science Series, GS-1301, the General Health Science Series, GS-601, or General Biological Science Series, GS-401.

TITLE DETERMINATION

Titles to be used for positions classified under this guide are the appropriate titles approved for the occupational series to which the positions are classified, e.g., Chemist or Microbiologist. Positions in occupational series for which titles have not been specified, e.g., the General Health Science Series, GS-601, an appropriate title, e.g., Health Scientist Administrator, may be used.

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NATURE OF THE WORK

For simplicity in wording the term "scientist" is used for such titles as engineer, psychologist, biologist, sociologist, education specialist and other professional occupations. Similarly, the term "manages" is used to reflect a range of functions involved in the planning for and support of research being carried on by grants and contracts.

For the most part this research is supported independent of ongoing research planned and directed by in-house research groups. The term frequently applied to work covered by this guide is "extramural" research. The funds provided for this type of research typically finance only a portion of the actual cost. The support may range from so-called "seed money" to substantial investments in facilities as well as such items as salaries, travel and publication costs. In some instances matching funds are required; in other instances grants from several governmental groups may be invested in the same project. Grants and contracts are made for a period of time ranging from 1 to 3 or so years, with a 1 to 2 year time period being fairly typical.

The most common instrumentalities used in supporting external research are grants and contracts. For the purpose of determining grade levels, this guide does not differentiate between grants and contracts. The essential objectives, level of responsibility, methods of operation, etc. are comparable regardless of the instrumentality employed.

Most of the external research funded by Federal agencies results from proposals for projects submitted by scientists outside of the Government. These proposals are submitted by educational and other nonprofit institutions in the form of applications for grants or contract to carry out scientific research in areas of knowledge related to the funding agencies' mission. This method of operation encourages full development of new ideas, theories, and methods without inhibition by preconceived ideas.

Characteristically, agencies make an individual determination to fund or not to fund each proposal. This requires a careful examination to determine that the proposed research is scientifically valid, has a good chance of success, and will produce findings of value that are related to the funding agency's mission.

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In funding such proposed research agencies must give consideration also to its importance and significance in the field of scientific knowledge, and the probability that the applicant will be able to bring it off successfully. In making such decisions agencies go outside of their organization to call upon eminent scientists specializing in one or more aspects of the proposed research to advise them. Some agencies have statutory advisory committees to serve this function on a permanent basis; each member serves for a specified term. Other agencies establish such committees as needed; others call on the services of individual consultants on an ad hoc basis.

Agencies cannot place full reliance on receiving the kind of proposals which will result in a cohesive and balanced research program to satisfy the agency's mission or national objectives. Therefore, scientists in the agency must initiate action to survey and study the field and to stimulate and redirect current or proposed scientific activities. These areas of responsibility, as in the case of evaluating the scientific validity of proposals, involve many varied and complex relationships among agency, national and international science advisory groups and individual scientific consultants.

Managing such research involves many common elements of judgment:

1. Review and analysis of proposed research in terms of its objectives, significance for public policy, and the resources required to initiate and sustain such research.

2. An evaluation of the value of the research in the present state of development of the discipline or subject-matter area, and of the importance of negative research results in determining future direction or emphasis.
 3. An identification and evaluation of parallel or related research in other organizations and a judgment of the need for additional work in this area. (This requires a most careful analysis based on depth of knowledge to assure, among other things, that research is not duplicated, and that new theories or approaches are not ignored.)
 4. A series of judgments of the stage at which research results may be developed into applications. (These judgmental factors become crucial in that the shift from research to development requires not only knowledge of the scientific discipline but also the conditions necessary to make a practical application of the research.)
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5. A series of judgments through the various stages of research of the appropriate time and conditions under which research should be discontinued because no results have been obtained, or because the results do not contribute to this field of knowledge or to the advancement of public policy.
 6. An evaluation of the facilities which can best be used to carry out research.
 7. An evaluation of all of the factors in research proposals which determine the relative priority of projects to be researched. This requires a great depth of knowledge of the state of the science but, of greater significance for this type of position, an intensive understanding of:
 - A. The availability of talent and its allocation as a scarce resource;
 - B. The public needs and the relative contribution of the research to such needs; and
 - C. An awareness of the totality of conflicting demands for scarce funds and resources.

CLASSIFICATION FACTORS

This standard provides grade-level guides for individual scientists and team leader positions. The following factors are used to determine the degree of difficulty, complexity and level of responsibility of such positions:

1. Assignment Characteristics, and
2. Level of Responsibility.

Qualification requirements have not been described separately but rather have been reflected as appropriate in both the "assignment characteristics" and "level of responsibility" factors.

The lowest level described in this guide is the GS-11 level. Positions covered by this standard are concerned with reviewing and evaluating the scientific validity of research proposals and assessing their importance and significance in a field of scientific knowledge. Such technical judgment must be based on sufficient experience and education in scientific research to reflect sound appraisals in a relatively broad field of a discipline or program. Scientists are normally assigned to a subject-matter area either in terms of an academic discipline such as chemistry, biophysics, psychology, or sociology or a program area such as heart disease, communication, secondary education, or human nutrition.

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Positions requiring this breadth and depth of scientific background normally would not be classified at levels below GS-11. Therefore, criteria for positions at such levels are not included.

Assignment Characteristics -- This factor reflects the nature and scope of functions carried out by the individual scientists; the complexity, novelty and scope of the subject matter assigned; the kind and degree of technical and managerial judgment required; and the extent and intensity of scientific knowledge involved in carrying out the assignment.

These elements are so greatly intermixed that normally no one item can be considered alone. For example, positions at the GS-11 and GS-15 levels may be concerned with the same expanse of subject matter, e.g., chemistry. It is the scope of the functions performed and the technical and managerial judgment exercised in performing these functions together with the relative expertise of scientific knowledge involved that reflect levels of difficulty and complexity.

Level of Responsibility -- This factor reflects the nature and extent of guidelines available; supervisory control exercised over the position; nature and extent of personal contacts; and responsibility for program development.

These factors are treated in a somewhat standard fashion, i.e., as supervisory control decreases, responsibility for program development increases. Thus, positions at the GS-11 and GS-12 levels have practically no direct responsibility for program development and dealing with others about such matters. Positions at the GS-14 and GS-15 levels, on the other hand, have a very significant level of responsibility both in developing program content and policies for their agency and in representing the agency in these matters throughout the scientific community.

USE OF THE GUIDE

Positions at GS-13 and above require considerable knowledge about the scientific subject matter involved. The level of performance in these positions depends in great measure upon the stature of the scientist and his acceptance as a peer by grantees and by other researchers with whom he consults (they may be the most eminent people in the field).

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Users of the guide may find it advisable to use a panel of scientists in evaluating the classification factors relating to the complexity and significance of the work and the ability and stature of the incumbent. The procedures for application of this guide are a matter for agency determination. However, scientist classifier participation on a panel affords an excellent opportunity for close cooperation and merging of the contributions which can be made by professional scientists and by classifiers. The general approach for participation by a panel of scientists as outlined in the Research Grade Evaluation Guide may be adapted for use in classifying positions under this guide.

GRADE LEVEL DESCRIPTIONS

GS-11 GRADE LEVEL

Assignment Characteristics

Assignments typically are limited in two respects: (1) the range of functions performed and technical judgment involved, and (2) the complexities of the subject matter being investigated. Characteristically, the scientist at this level serves as an assistant to a higher level scientist who is responsible for a subject-matter or program area. GS-11 scientists may perform a variety of investigative tasks for a particular segment of the subject-matter area or may perform a variety of tasks across the spectrum of the area.

Scientists at this grade level bring to their assignment a knowledge of the organization and conduct of basic and applied research in a subject-matter specialty of a discipline or program. They are expected to apply their knowledge of the subject-matter area and their basic familiarity with the fundamentals of scientific research methodology to matters involving the scientific administration of research grants and contracts.

They become familiar with the kinds of research being carried on in their subject-matter area, the kinds of projects which the agencies have supported and the kinds of projects supported by other agencies.

Typically, these assignments relate to the development of factual data for higher grade level scientists. GS-11 scientists may perform a variety of duties such as:

1. Intensive literature review in a selected subject to determine where research is being done, what specific aspects of the subject are currently being researched, what aspects have been exhausted or abandoned and what level of understanding about specific questions has been achieved;

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2. Preliminary screening of proposals to ascertain if such research is normally supported in this particular program (or agency). For proposals which may be of interest, ascertains the completeness and clarity of the proposal such as problem statement, sufficiency of data about methods and techniques to be utilized, justifications for equipment requested, where, when, and by whom work will be carried out, and other similar matters which are used to evaluate the scientific worth of the proposal;
3. Preparation of background data on specific proposals and subjects for symposia, advisory panel meetings, site visits, and other activities;
4. Preliminary screening of periodic reports of grantees and contractors to spot problems, to ascertain progress, and to pinpoint accomplishments and data which may be of particular value for various reports and other programs;
5. Provide factual information about the funding agency's policies and procedures to grantees and contractors, to applicants and potential applicants, and to other funding agencies.

Level of Responsibility

GS-11 scientists are given assignments with general instructions about what may be wanted. In complex and difficult issues, they are guided and supervised by higher grade scientists. They are expected to call to the attention of their supervisors matters about which they are not certain or which they encounter for the first time.

In carrying out their duties, GS-11 scientists must apply a knowledge of the appropriate scientific disciplines. GS-11 scientists typically carry out independently those tasks for which guidelines are available in the form of written policies, procedures, and instructions (which may have been developed for grantees). They consult with their supervisors and with colleagues in developing knowledge and applying agency policies and practices to new matters arising in the course of the review of applications, program data, and research findings. Their work is reviewed for technical adequacy and conformance with procedures and practices applicable to the program and subject involved.

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Contacts may be numerous with applicants, scientists in other funding programs or agencies, grantees, etc., in the exchange of factual information.

GS-12 GRADE LEVEL

Assignment Characteristics

GS-12 scientists, like GS-11 scientists, serve as assistants to higher grade level scientists responsible for subject-matter or program areas. They differ essentially in that GS-12 scientists typically perform, either on a continuing or rotating basis, the normal range of in-house review and evaluation processes which are involved in selecting research proposals to be funded. Some GS-12 scientists have assignments in one of the other major functional areas of administering research grants and contracts, such as program planning or review and evaluation of research results.

GS-12 scientists characteristically are assigned to subject matter areas in which competent and definitive research is being conducted. The research proposals typically have direct application to the agency's mission. The area may be in a broad scientific discipline such as chemistry or the earth sciences; in a specialized area such as the chemistry of pesticides or the geology of an area; or in a mission-oriented agency program such as metabolic diseases, group behavior, or problems in life-support systems.

For example, a typical project might have as its objective the development of a new pesticide that eliminates undesirable attributes of other pesticides. The approach to be taken is to attempt to alter the chemical structure of a known class of pesticidal substances.

In another example a study is undertaken to standardize clothing and shoe sizes, utilizing a mass measuring program and statistical analysis.

Another example of a project at this level would be to devise an instrument to be used in a submarine to monitor the total intake and utilization of the various chemical and biological constituents of the life-support cycle.

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In any of these situations, GS-12 scientists:

1. Review for completeness new and renewal applications for research grants or contracts;

2. Study the literature in order to place the proposed research project in its relationship to the research being done in the subjectmatter area;
3. Prepare for site visits as necessary by compiling background information on prior or current proposals, identifying inconsistencies in data, etc.
4. Furnish advice and assistance to applicants and consultants concerning the agency's policies, procedures, etc.;
5. Review progress reports on currently supported studies to pinpoint relationship and effect on new or renewal proposals;
6. Analyze the information and data derived from the above sources and present the technical and scientific aspects of applications to their superiors, to committees of consultants, and to others with tentative recommendation of possible action.

Unlike the GS-11 level evaluation of research at GS-12 requires the scientist to be familiar with other related research activities funded by his own and other agencies, and those carried on under nongovernmental auspices. He must be able to evaluate the research model on which a project is based and to assess the value of the project's objectives to his agency's mission.

In other assignments, such as program planning, the duties performed are similar, but for a different purpose, and require comparable technical judgment. Thus, instead of reviewing specific project proposals, the GS-12 scientists review existing projects, proceedings of colloquia and symposia, writings of researchers in the field to ascertain the state of current knowledge, and to identify areas or specific questions to be explored.

Level of Responsibility

GS-12 scientists are given responsibility for a specific segment of a program (subject-matter area or function) for which the objectives and directions are indicated by others. As at the GS-11 level, GS-12 scientists plan and carry out the work processes involved in the assignment, and, in addition, identify the extent of investigation, analysis, and evaluation necessary to make scientifically valid recommendations.

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Recommendations in regard to the scientific worth, feasibility, and possible impact of new and renewal proposals are reviewed by higher grade level scientists for propriety and logic of scientific justification, and compliance with regulations, procedures, and policies for supporting research. Evaluations of proposals or program data which indicate doubtful attainment of objectives or redirection of research efforts are reviewed critically.

Assignments involve contacts with current and prospective grantees and contractors relative to the review and evaluation process and its results for specific proposals when the data exchanged is relatively straightforward and noncontroversial. Considerable tact and technical judgment is required in discussing the scientific evaluation of proposals and current projects, so as not to unduly influence or seemingly criticize the methodology, results, etc. Such inquiries may result from informal contacts at meetings, phone calls, or in the course of other activities. Committing the agency to a course of action is not typical at this level.

GS-13 GRADE LEVEL

Assignment Characteristics

GS-13 scientists serve as staff specialists for a significant segment of a subject-matter or program area. Scientists at this level provide technical guidance to the scientific community in planning, coordinating, and evaluating proposed research projects and programs of interest to the agency. At GS-12, the technical guidance relates more to ongoing projects.

GS-13 scientists judge the relative value of research being proposed or continued against specified goals. At this level the scientist's knowledge about the field is that of one who is recognized as a competent researcher. Assignments typically involve:

1. Encouraging continued research in a broad scientific discipline such as chemistry or the earth sciences, or physics. In assignments involving this kind of subject-matter area there is a considerable amount of current research being done. Individual research projects will vary from actions to expand a specific area of knowledge one further stage, to complex theoretical investigations that will uncover new frontiers of knowledge. GS-13 scientists must be able to relate proposed applications or plans to the fabric of scientific research in the subject-matter area, either on the bases of their own knowledge, or through their contacts and relationships with knowledgeable scientists in the subject-matter field.
2. Evaluating research in a specialized area of a scientific discipline such as the chemistry of pesticides, the geology of an area, or microminiaturization. Research in subject matter such as these typically has a direct effect on the agency's mission. The scientist working in these areas must have a deep knowledge of the specialized aspect of the subject matter, the ability to recognize the essential characteristics of the proposed project, and the ability to evaluate the significance of its objectives to the agency's mission.

3. Coordinating a segment of a program area such as metabolic disease, life-support systems, group behavior, or human nutrition. In these subject-matter areas, research in many different scientific disciplines, chemistry, biology, physics, sociology, psychology, etc., may have pertinence to the agency's mission. Scientists working in these fields must become familiar with the scientific disciplines involved and be able to relate proposed research projects to the agency's programs. They must also be able to recognize the pertinence of work done in one program area to problems existing in another.

In addition to the technical judgment required of GS-12 scientists to assess the adequacy of presentation of data, methods, and purported objectives of research projects, GS-13 assignments typically require that technical judgments be made about various intangible and complex issues such as:

1. The validity of unusual approaches;
2. Sensitive questions concerning the competence of the researcher;
3. The effect of controversial or adverse conditions under which the work is to be performed;
4. The likelihood of achieving objectives which are not readily attainable; and
5. The relative value of current or proposed research to specific agency programs.

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GS-13 scientists insure that data and justifications are adequate for determining whether the project should be funded and with what priority in view of ongoing projects and other proposals being considered. They determine, for example, if site visits to the institution or laboratory are needed to ascertain the quality of the facilities and other work being done and the effect that the teaching load and attitudes may have on the level of institutional support available.

In their review and evaluation of research progress, GS-13 scientists evaluate significant changes from the original approach and methods contemplated and the effect they may have on the research program of the agency as well as on the project itself. They discuss the proposed changes with the grantee or contractor, suggest effective modifications, and recommend action by the funding agency.

Level of Responsibility

GS-13 scientists work under a higher level scientist knowledgeable in the general field. They differ from those at GS-12 in that assignments are given in broadly stated terms with direction given mainly in matters of unusual and controversial approaches and problems of an intractable nature. Characteristically, GS-13 work is performed with a marked degree of professional independence and technical authority.

Unlike GS-12 scientists, they are responsible for seeking out and pinpointing research needs in their area of assignment. Recommendations of GS-13 scientists are reviewed, in general, for conformance to agency policy and practices mainly with regard to scientific and program justifications and needs and their effect upon the scientific community.

In their contacts and discussions with applicants, other agencies, and contractors, GS-13 scientists represent the agency in interpreting and applying established policies, procedures, and practices to the specific research efforts under discussion. They also furnish advice and consultation to agency consultants on the iteration of agency policy to applications undergoing review. These recommendations and suggestions are made to grantees, contractors, consultants, applicants, and potential applicants without further review when they are in accordance with the policies, regulations, and practices of the agency. When unprecedented questions arise, GS-13 scientists seek authoritative advice and assistance from their superiors.

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GS-13 scientists may work with a permanent or ad hoc committee of specialists in the subject-matter field as participating members of the committee, or as scientific staff members who obtain specialized advice and consultation from research scientists either in the agency or throughout the scientific community. GS-13 scientists are expected to be familiar with the principal researchers in the subject-matter area, and to be able to draw upon them for advice and assistance, and to recommend their participation in agency review committees.

GS-13 scientists are qualified to speak and deal responsibly concerning technical matters in their subject-matter area. They are consulted by their colleagues in matters concerning the status and support of research in their particular field.

GS-14 GRADE LEVEL

Assignment Characteristics

GS-14 scientists serve as staff specialists responsible for providing technical leadership and guidance in a major subject-matter, functional, or program area. Assignments at this level have a broader cope of responsibility than those at the GS-13 level and require an intensive subject-matter knowledge and significant leadership qualities.

Whereas the GS-13 scientists' work primarily involves evaluations of the scientific validity and recommendations for the amount and kind of support to be given individual research proposals and projects, GS-14 scientists function in a lead role for their agency in seeking a balanced research endeavor and in stimulating change along particular lines. Their activities have a major impact on the direction of the agency's research program and on that of the research community itself in the assigned area.

GS-14 scientists formulate the program needs for the agency in their area. In so doing they evaluate the significance to trends and emerging fields and assess the adequacy of research competency within the field to achieve a quality and quantity of research to meet the agency's missions and objectives. They serve as the agency representative on permanent or ad hoc committees to evaluate research proposals, to assess the scientific quality and validity of ongoing research and to plan future approaches and emphasis.

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GS-14 scientists evaluate the seriousness of problems and difficulties in achieving program objectives and in advancing the state of the art. They initiate action among a variety of interests (governmental and nongovernmental) to bring deficiencies, inadequacies and new developments into sharper focus, to stimulate new thinking or redirection of research efforts, to enhance research capability, etc.

GS-14 scientists evaluate the significance of research results and initiate appropriate action to assure that proper emphasis is given to critical and far-reaching research. They prepare or encourage scientists to prepare articles and reports, initiate symposia and other activities which will disseminate vital data and their significance to those researchers, activities, and users for whom the data are of value.

Level of Responsibility

GS-14 scientists are responsible for providing an integrated and responsive agency effort for a research program or area. They receive little or no technical guidance or direction from superiors other than that provided by agency policies, practices, and funding levels.

Typically, scientists at this level establish criteria and standards for others to follow in planning, reviewing, and evaluating research projects. The nature of such assignments requires a broad expanse of contacts with the scientific community involving substantial and fundamental issues in the given field. Since GS-14 scientists speak for the agency through informal conversation and formal gatherings, the technical advice and consultation provided researchers, consultants, program officials and others is rarely subject to technical review except for critical matters which they bring to the attention of their superiors.

Supervisory control is primarily administrative and concerns such matters as approval for overall funding levels and priorities assigned to research efforts, initiating new programs, organizing symposia, and changing objectives of research efforts which have an important impact on major programs. Decisions relative to non-funding and nonsupport of research efforts are frequently not susceptible of review unless the subject is quite controversial in the scientific community or of major importance to the agency's mission.

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GS-15 GRADE LEVEL

Assignment Characteristics

GS-15 scientists serve as staff experts and consultants. Assignments differ from those at the GS-11 level in that GS-15 scientists provide leadership and direction for programs of national and international scope and impact in:

1. Establishing goals and objectives for research programs;
2. Allocating scarce resources among major competitive programs;
3. Organizing efforts to initiate pioneering programs and to resolve critical issues involving national policies;
4. Developing policies and plans for strengthening agency and national programs of scientific and public urgency;
5. Determining the need for and directing the preparation of technical and administrative guides, standards and criteria to accomplish national research objectives; these goals may include efforts to "upgrade" research capability, to establish firmer cooperation in research programs among international, governmental, and nongovernmental interests, and similar matters;

6. Continually evaluating the utilization of resources against progress made; reorienting and making adjustments between programs to meet exceptionally important new or changed national policies and goals, and to overcome unforeseen difficulties and unsatisfactory results;
7. Integrating and coordinating the efforts of others in the agency at the GS-14 and lower levels who are giving technical leadership to a research grants area. (GS-15 scientists commonly serve as team leaders or program directors with 1-3 associates.)

Level of Responsibility

GS-15 scientists are responsible for playing a major role in the formulation of agency-wide program objectives, plans, policies, and criteria. They formulate the posture of agency for the support of research in broad and important areas of national interest. GS-15 scientists advise the highest levels of agency management in major areas of importance in overall policy and program direction and serve as spokesmen for the agency in this regard with the scientific community.

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Contacts and participation with eminent scientists are typical in all aspects of their responsibilities. Their advice, consultation and direction are recognized as authoritative within the agency and by leading figures in the scientific community.

Supervision at this level is nominal. The GS-15 scientist plans and carries out his program within the framework of enabling legislation, agency overall policies, missions, objectives, and resources. Their work is not susceptible of review except in summary form and is viewed in terms of:

1. The fulfillment of broad program objectives and national goals,
2. The effect of their advice and influence in managing and achieving a quality research program, and
3. Their contribution to the advancement of research in their broad field to meet exceptionally important new and changing national interests.